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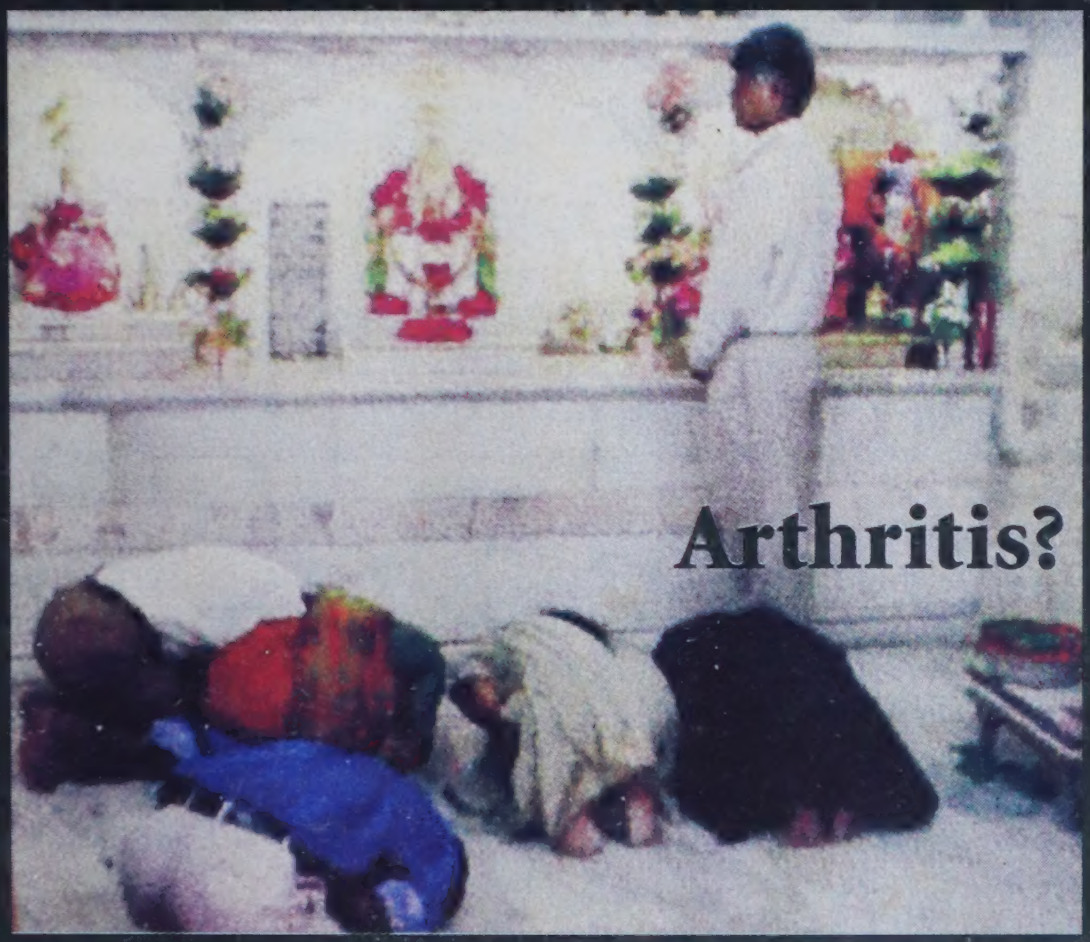

Arthritis?

Now you don't have to feel helpless

Arthritis and rheumatism: Hard facts

ARTHRITIS afflicts structures inside the joint and rheumatism outside the joint viz. muscles, tendons, bursae. When there is inflammation inside the joint it is known as arthritis. There are over a hundred types of arthritis. So precise diagnosis is important and is critical to the outcome of treatment. Early precise diagnosis means excellent prognosis. Late or faulty diagnosis generally means the joint may get deformed.

Pain, swelling, early morning stiffness are some of the cardinal symptoms. Difficulty in moving the joint results in activities of daily living getting compromised. Rheumatoid arthritis is thrice as common in women. Osteo-arthritis comes up generally in old age after 50-55 years. The cartilage inside the joint which acts as a shock absorber undergoes wear and tear. This results in pain especially on movement. Difficulty in coming down the stairs and difficulty in walking are characteristic symptoms.

Pain killers alleviate pain, but they do not affect the pathology inside the joint. So disease modifying drugs have to be used. For rheumatoid arthritis these are choroquine, sulfasalazine, methotrexate and now leflunomide. For osteoarthritis disease modifying drugs are highlighted by availability of glucosamine and chondroitin. These are actually nutritional supplements and hence are called Nutraceuticals. These are very safe and practically without any side-effects. These help to form the new cartilage i.e. the shock absorber in the osteoarthritic joint.

Many studies have confirmed these observations. Hence glucosamine with chondroitin are gaining increasing popularity in the treatment of osteoarthritis. The patient need not be in despair any more and there is hope towards better living in spite of osteoarthritis.

Dr Prakash K. Pispati
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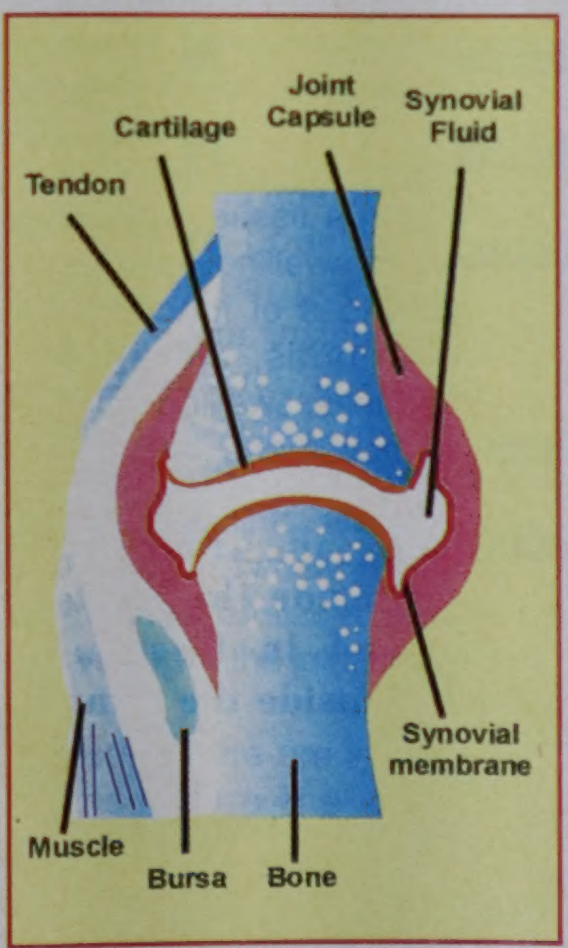
Control your arthritis, do not let it control you
Dr Christiaan Barnard

What is arthritis?

Arthritis describes the more than 100 chronic diseases of the joints, bones, and muscles. *Arthron* in Greek means joint and *itis* means inflammation. Arthritis thus refers to the pain and inflammation of the joints. The two most common and best known types of arthritis are osteoarthritis, a wearing away of the cushioning cartilage in the joints; and rheumatoid arthritis, an autoimmune disease that causes painful and often disabling joint inflammation.

Normal joint



Arthritis also includes a range of diseases that affect the muscles, connective tissues and organs, such as fibromyalgia lupus, ankylosing spondylitis, osteoporosis, scleroderma, gout, and even lyme disease. Symptoms can range from pain and stiffness in some joints to serious and severe damage to joints and internal organs.

The symptoms and seriousness of arthritis diseases vary widely. It can be a mild condition which you can control with over-the-counter pain relievers or it can cause severe pain and inflammation. Left untreated, some forms of arthritis can be life-threatening.

Arthritis is also referred to as

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rheumatism. The terms are used interchangeably by people and arthritis specialists are still called rheumatologists.

Rheumatology refers to the study of medical disorders of joints and connective tissues. The connective tissue provides the structural support for the cells in the body. Bone, skin, ligaments and tendons are all connective tissue.

There are 68 joints in the human body and all of them are susceptible to arthritis. Arthritis can hinder the normal functions of the joint. However, the disease, once diagnosed, can be controlled by prompt and continued treatment.

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Common types of arthritis

Osteoarthritis: Sometimes called degenerative joint disease, osteoarthritis (OA) results when the cushioning cartilage in the joints breaks down, causing pain and stiffness. It is the most common arthritis. It is perhaps the most common and oldest disease affecting humans. With the improvement in life expectancy from 55 years to 70 years on an average, most persons past the age of 60 have osteoarthritis to a certain degree.

OA is termed primary osteoarthritis when it occurs in the absence of a particular cause. Secondary osteoarthritis can be attributed to an obvious underlying factor such as injury (previous fractures), infections, hormonal disorders or as a consequence of another type of arthritis such as rheumatoid arthritis. Obesity (over weight) may also lead to secondary osteoarthritis in the weight bearing joints.

Osteoarthritis

Joint pain is the usual symptom. Initially the pain comes on after overwork and is relieved by rest. Later, as the disease progresses, pain occurs even while resting. Rarely is the pain felt far from the affected joint This is known as referred pain in medical parlance. Some people with osteoarthritis in their hips feel referred pain in their knees.

Rheumatoid arthritis: An autoimmune disease that inflames the lining of the joints and is one of the most serious and disabling types of arthritis. It begins most often between the ages of 20 and 50 years. Women are affected thrice as often as men.

The onset of the disease is heralded by symptoms such as fatigue, weight loss, muscle aches (myalgia), early morning stiffness of the joints, arthralgia or joint pain and joint swelling.

Other than the joint pathology, organs like lungs, heart, eyes and digestive system may also get involved in later stages, in about 10-15 per cent of patients.

Gout: A painful condition that may attack both small and large joints, often beginning in the big toe. Arthritis in the gout is due to the deposition of uric acid crystals in and around joints, which occurs when certain chemical processes in the body go out of control. Uric acid is a waste product produced by the body, following the breakdown of substances called purines. Purine bases are abundantly distributed in living cells, as well as found in may foods. In human beings, more than 70 per cent of uric acid is excreted through the urine and rest through the digestive system. When there is an excess of uric acid, it gets deposited in the joints, in the kidney and as stones in the urinary tract. An acute attack of gouty arthritis can be triggered by crash diets, injury to a joint, excessive intake of alcohol, eating too much meats, sweet breads, mushrooms, cauliflower and peas. Obesity and environmental factors are also known to act as predisposing factors.

When gout has been present for a long time, urate crystals get deposited under the skin (over the elbow, on the outer edge of the ear) or near affected joints. If gout is not

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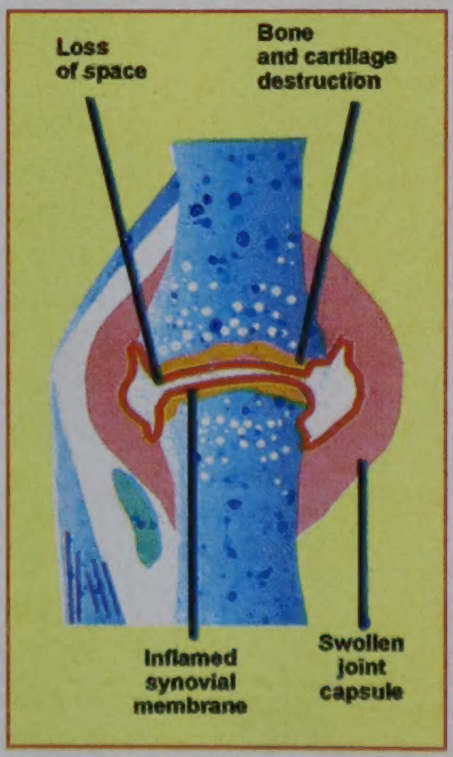
Rheumatoid arthritis



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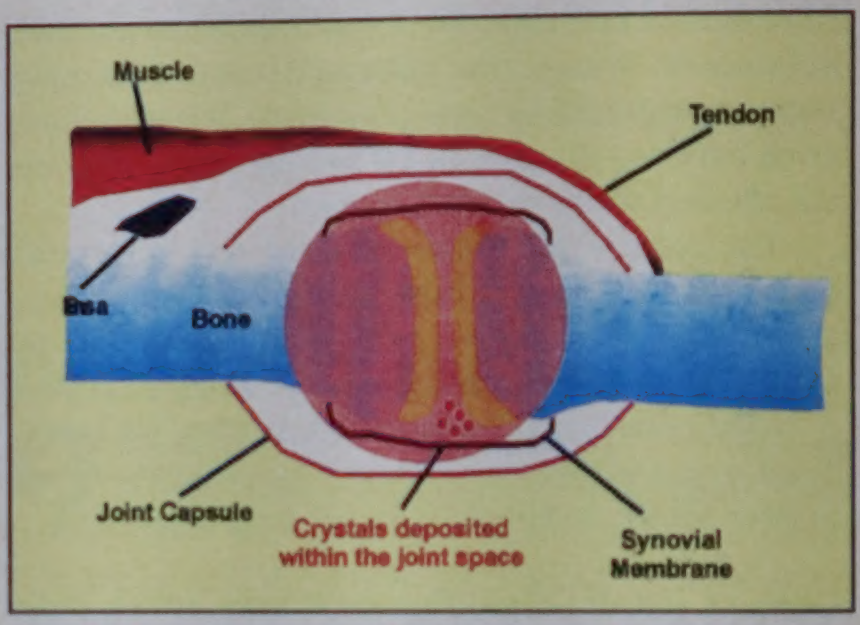

Gout

treated, these deposits or tophi, as they are known, may break through the skin and become infected. Heel, ankle, other joints of the feet, knee, wrist, fingers and elbow may also get infected due to inadequate treatment. A person with gout should avoid or restrict foods such as meat, fish, sardines, sweet breads, yeast, cauliflower, mushrooms, spinach, peas which contain moderate or high purine content.

Lupus: (systemic lupus erythematosus or SLE): A serious autoimmune disorder that can inflame and damage joints and other connective tissues in the body, the cause of which is still uncertain. It is more common in women in the reproductive age, than in men. It involves the skin, joints and kidneys. In India, according to certain studies, approximately 50 cases of SLE are known to occur per 1,00,000 population.

Nearly 80-90 per cent of SLE patients suffer from joints' symptoms. It is an arthritis involving multiple joints, symptoms mimic that of rheumatoid arthritis. Certain other characteristic features of SLE are butterfly rash over the face, photo sensitivity (intolerance to sunlight), fever of moderate degree, ulcers in the mouth and kidney disease.

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SLE patients are advised to avoid exposure to sun (UV-rays). Drugs which might have induced SLE (a few blood pressure controlling drugs, drugs used to treat fits and certain antibiotics are known to aggravate the condition) are stopped.

Juvenile arthritis: Refers to all types of arthritis that affect children, including juvenile rheumatoid arthritis (the most common) and childhood forms of lupus and ankylosing spondylitis. It may be caused due to trauma and infections such as tuberculosis, mumps and German measles. Juvenile arthritis is seen in children under 16 years and is characterised by arthritis in one or more joints, with limitation of range of motion, pain on moving the joint and increased temperature over the affected joint. Duration of disease should be 6 week to 3 months.

Management of arthritis in children is a long term, co-ordinated effort. If not properly treated, children can develop several complications. Varying degrees of joint destruction, disability and joint deformity can occur. Children who have arthritis in only a few joints (particularly juvenile rheumatoid arthritis) often develop eye disease, that may lead to blind-

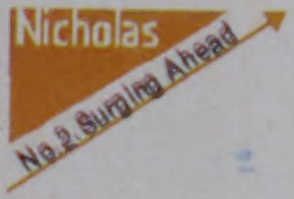
Causes and risk factors

Researchers don't know what causes most kind of arthritis. However, risk factors for some kinds of arthritis include:

Gender : Overall, twice as many women as men get arthritis.

Heredity : Some types of arthritis, including weakness in joints or bone, may be inherited.

Repeated joint injuries or stresses, from sports or work that wear away cartilage in the joints.



ness. Such children often have auto-antibodies in their blood that can react with the nuclei of human cells. Children who have chronic and active disease for many years, have also been known to suffer abnormal immune reactions.

Aspirin is the drug of choice, well tolerated in children.

Fibromyalgia: A chronic pain disorder that causes fatigue, sleep disturbances, and widespread pain in the muscles and tendons, particularly in the neck, spine, shoulders and hips.

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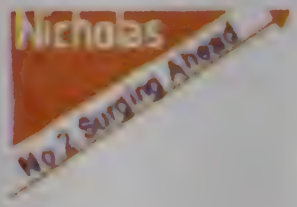
Who gets arthritis?

Arthritis strikes almost twice as many women than men, but rheumatic diseases can attack people of any age or race, and either gender. Nearly 300,000 children have arthritis, and almost everyone over the age of 60 eventually gets some kind of the wear-and-tear osteoarthritis.

Research has revealed that certain kinds of arthritis can be inherited. These hereditary traits produced by genes are called genetic markers. The genetic markers that interest arthritis experts are the proteins known as the human leucocyte antigen's or HLA, which are located on the surface of most cells in the body. Scientists discovered these HLA blood cells, that are also known as human leucocytes.

Arthritis found in India

Rheumatoid arthritis
Osteoarthritis
Infective arthritis
Arthritis associated with rheumatic fever
Juvenile chronic arthritis
Gouty arthritis
Psoriatic arthropathy
Ankylosing spondylitis
Arthritis following trauma (injury)
Certain syndromes such as Sjogren's syndrome, Felty's syndrome & Reiter's disease.



Genetic studies have shown that more than 60 per cent of adults with Rheumatoid arthritis have a maker antigen called HLA-DR4. The presence of another marker, the HLA- B27 has helped the scientists detect ankylosing spondylitis and Reiter's Syndrome.

Yet the presence of marker does not mean that all patients will have the same symptoms or respond to the same treatment. People with different genetic markers may respond differently to certain medications. There are also people who develop rheumatic disease without showing the presence of any of the related genetic markers. This is because several types of arthritis can occur as complications of infections.

The other theory which explains the origin of arthritis is the 'autoimmune mechanism'. This happens when the immune system mistakenly seems to turn against the body and become part of the disease process instead of defending the body.

Normally, in a healthy individual, antibodies are produced against the invading antigens, to protect the body. If the antibodies are directed against parts of the person's own body cells, they are called auto antibodies and the disease is termed autoimmune. Thus, the continued presence of many immune complexes initiates inflammation. In this way, arthritis can be termed as an auto immune disease.

Chronic inflammation caused by arthritis could also be due to the effects of prostaglandins which are produced by various tissues in the human body.

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Tests for arthritis

ESR (Erythrocyte sedimentation rate)

This is measurement of how fast the red blood cells collect at the bottom of a glass tube which is filled with a test sample of the blood. The sedimentation rate is measured after an hour. High ESR is found in people with inflammation due to arthritis and some other causes like TB and a few types of cancers.

RF test or Rheumatoid factor test

It checks if a certain kind of abnormal antibody known as the 'rheumatoid factor' is present in the blood and if so, how much is present. In 70-80 per cent of rheumatoid arthritis cases, RF is present in a quantity higher than 80 International Units.

ANA (anti nuclear antibody)

Tests the presence of another type of abnormal antibodies, 'anti-DNA' type of ANA, which is of importance in the diagnosis of systemic lupus erythematosus.

VDRL test

Suggested for patient suffering from syphilis who shows symptoms of arthritis.

Non-immunological test

Tests for the estimation of serumenzymes can also reveal a lot of information to the doctors. Some kinds of arthritis induce muscle damage which can cause muscle enzymes to leak into the blood stream.

Synovial fluid analysis

The procedure to draw the synovial fluid is called joint aspiration, which is carried out using a sterile or

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aseptic technique. This procedure is not routinely done but is of importance in the diagnosis of infective (pyogenic) and gouty arthritis.

X-rays of the affected joints, apart from being helpful in diagnosis, also helps the doctors to follow the progress of the disease. Apart from plain X-ray examination, imaging techniques like isotope scan, CT (computerised axial tomography), MRI (Magnetic resonance imaging), and contrast studies can also be used on some patients.

Diagnostic arthroscopy is another procedure using which the doctor can directly view the insides of the joints. The orthopaedic surgeon can do it by inserting an arthroscope, the diameter of which is as small as that of a drinking straw, into the joint through a small hole and move it around to examine the joint tissues such as the cartilage. Extent of damage to the joint can be determined easily using this technique.

Signs and symptoms

The symptoms of arthritis vary, but if any of the following are noticed for more than two weeks, a doctor should be consulted. Some kinds of arthritis need early and aggressive treatment to prevent or lessen irreversible joint damage.

Swelling in one or more joints, especially with warmth and redness.

Stiffness around the joints that lasts for at least one hour in the early morning.

Constant or recurring pain or tenderness in a joint.

Sudden difficulty using or moving a joint normally.

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Other types of arthritis

Of the more than 100 types of arthritis and related conditions, these are less common.

Ankylosing spondylitis: This type primarily affects the spine, but may also cause arthritis in the hips, shoulders and knees. In severe cases, the vertebrae "freeze" together. It appears to be inherited, mostly attacks men in late adolescence or early adulthood, and is treated with NSAIDs, exercise, and sometimes methotrexate, and other powerful drugs also used for rheumatoid arthritis.

Bursitis, tendinitis and other soft-tissue injuries: The conditions are often caused by injuries or inflammation that result from sports, hard work, or overuse of a joint or muscle. The bursae—small, fluid-filled sacs that help reduce friction between bones and other moving structures in the joints—get inflamed. In tendinitis, the tendons (tough cords of tissue that connect muscle to bone) are inflamed. These conditions are usually short-lasting and treated with rest, ice packs and anti-inflammatory drugs, followed by gentle exercise. Occasionally, local steroid injections are also used.

Infectious arthritis: Joint inflammation from bacterial or viral infections can cause arthritic symptoms. Left untreated it can cause permanent damage. Just about anybody can get a joint infection. Infectious arthritis types include human parvovirus arthritis, gonococcal arthritis and Lyme disease. Antibiotics can cure most kinds of infectious arthritis from bac-

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teria (including Lyme disease) if treated early. Infections from a virus usually go away on their own.

Osteoporosis: It is a loss of bone density that causes bones to weaken, leaving you vulnerable to fractures and height loss.

Eighty per cent of those affected by osteoporosis are women. Most commonly linked to calcium deficiency and heredity, the condition can also be a byproduct of powerful drugs (such as glucocorticoids) used to treat autoimmune diseases. Sometimes a broken bone is the first sign of osteoporosis. A bone density test and X-rays can show bone weakness. Supplements and activities that stop bone loss are the best prevention, as well as treatment. Calcium supplements, estrogen replacement, weight-bearing exercise, and drugs such as alendronate sodium can slow or stop bone loss.

Raynaud's phenomenon: Spasms of blood vessels in the fingers and toes can temporarily restrict circulation, sometimes leading to skin ulcers. Mostly women get Raynaud's, and it often shows up with scleroderma and lupus. Treatment includes keeping warm, protecting the skin, and sometimes, drugs to reduce spasms and help circulation.

Scleroderma: Also known as systemic sclerosis, this disease affects the skin, blood vessels and joints, and in a more serious from, attacks internal organs such as the lungs and kidneys. An overproduction of collagen (a fibre-like protein) in tissues gets stiff and hard (the word scleroderma means "hard skin"). It can be deadly.

A variety of treatments have been tried but none works that well, nor is there a cure.

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Treatment for arthritis

While most kinds of arthritis are chronic and can't be cured, you don't have to face a life of pain. You can live a normal life.

Some kinds of arthritis, such as osteoarthritis, seem to be part of the ageing process. A great deal can be done to ease some of the symptoms of arthritis and continue a normal lifestyle. Over-the-counter pain relievers and anti-inflammatories may be all you need. There is also an array of prescription drugs to help with more serious kinds of arthritis, including several new drugs for rheumatiod arthritis. In severe cases of joint damage, surgery can help restore joint function and mobility.

You're in charge

Lifestyle changes can also help, especially if you take an active role in managing your condition. Maintaining an appropriate weight, exercising regularly and avoiding joint injuries can lessen your chances of getting osteoarthritis and help you cope better with the symptoms of all kinds of arthritis.

Alternative therapies may also help with many arthritis symptoms. Self-help programmes can give you coping skills and practical advice. Mind/body practices such as meditation and relaxation can relieve pain, stress, and depression. Yoga also offers some benefits. Swimming can help maintain conditioning with low impact on joints.

But don't believe claims for herbs and dietary supplements that "cure" arthritis or suggest that they

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"re-grow" cartilage. Some may help relieve symptoms, but there is no cure for most kinds of arthritis. Don't give up your regular medication to try unproven therapies. Using proven therapies, you'll most likely be able to enjoy a high quality of life despite having arthritis.

Until a few decades ago, a diagnosis of arthritis was deeply discouraging to patient and doctor alike. Most types of arthritis were incurable, and there was little to offer in the medicine chest. Today, though researchers haven't found a cure for most arthritis, they have developed a growing array of prescription and over-the-counter drugs that can help, with new medications arriving on the scene regularly.

The following articles outline the basics of new, conventional and alternative treatments, the benefits of self-help programmes, plus treatment specific to the different types of arthritis.

Treatment for osteoarthritis

OA can't be cured and, so far, doctors can't reverse joint degeneration. But many medications can treat the pain, and some new therapies show promise of slowing or stopping cartilage destruction.

Treatment focuses on relieving pain, preventing the joints from further damage, and helping you stay active. Working with health professionals, you can learn to avoid stressing your joints, compensate for

Exercise

Doctors used to think exercise wore joints out faster; now they know it is essential to keep joints healthy. Your doctor will recommend exercises, and will probably send you to a physical or occupational therapist to teach you exercises appropriate for your particular OA, age and overall condition.

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any loss of flexibility or mobility, and strengthen muscles to better support already weakened joints.

In cases of severe cartilage loss, surgery can help. Total joint replacement is now commonplace, relieving pain and restoring mobility to many people who would be unable to function otherwise. A note about medications: Many of the prescription drugs prescribed for osteoarthritis have side effects. Be sure to discuss treatment benefits and risks with your doctor.

➤ Weight loss

Extra stress on your joints wears out your cartilage faster. If you are overweight, your doctor will urge you to trim down to a weight appropriate for your age and height. Avoid crash diets, though. A combination of exercise and diet works best.

➤ Painkillers

Creams, gels and lotions containing various kinds of pain killers are popular over-the-counter treatments. Rubbed onto the painful joint, they work either by stimulating sensations that distract the pain or by blocking pain nerves.

Counter-irritants distract the sensation of pain. Some contain salicylates, which are aspirin and work as local pain relievers.

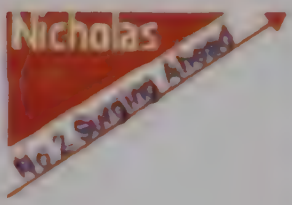
A cream or gel that contains capsaicin, which is found in cayenne pepper, interrupts substance P, a neurotransmitter believed to carry pain message to the brain.

➤ Glucocorticoid injections

Injection directly into or around the joint are sometimes given to relieve pain and swelling. People have different reactions. For some, it gives immediate relief that can last for a long time. Others don't respond at all. Doctors don't like to give these injections more than four times a year because of the risk of cartilage damage.

➤ Assistive devices

Canes, splints, braces and other assistive devices that



help support your joints or relieve stress and pain can help you get around better and reduce your risk of falling. If you have OA in your hands or wrists, specially designed kitchen tools, doorknobs, and other gadgets can ease the strain of day to day tasks.

➤ Warm-water exercise

Swimming and doing other aerobic water exercises in a heated pool can help you exercise without putting pressure on your joints.

➤ Surgery

You might benefit from surgery if your OA progresses to the point where it seriously interferes with your ability to move easily, causes severe pain or deforms your joints.

More common types of surgery for osteoarthritis include

Debridement The surgeon smoothes out irregular joint surfaces, and removes loose bits of bone or cartilage that could be contributing to inflammation.

Osteotomy Doctors cut and re-set bones to re-align the joint. This procedure is most often performed on the knee joint.

Arthrodesis Also called "joint fusion", your doctor may suggest this surgery when joints are seriously damaged. It's usually done on sections of the spine but may involve ankles and other joints.

Arthroplasty This is another term for total joint replacement; your damaged joint is removed and replaced with a plastic or metal joint. Most often done on knee and hip joints, arthroplasty can be done on any joint except those of the spine. However, artificial joints usually have to be replaced after 10 to 20 years, which means they are a last choice for a young person who would require several replacements over time.

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Alternative treatments

Many treatments that were once considered fringe are now proving effective. Some have already been accepted by mainstream medicine.

Vitamins and minerals

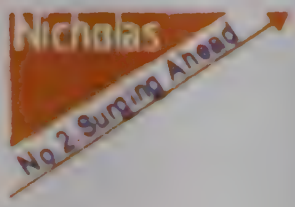
Many doctors are wary of vitamin and mineral supplements, especially if taken in mega-doses that might harm you. However, studies show that moderate amounts of some can help many kinds of arthritis.

Calcium	Most people with arthritis, especially women over 45, should take calcium supplements to help protect bones and joints. However, too much calcium may contribute to kidney stones.
Vitamin C	Some studies show that vitamin C may reduce the risk of OA progression and pain.
Vitamin D	Osteoarthritis seems to progress faster in people with low levels of vitamin D. This vitamin works with calcium to protect bones and joints.
Vitamin E	Famous for reducing your risk of heart disease, studies also indicate vitamin E supplements ease OA pain.

Supplements

Glucosamine and Chondroitin: Studies show these two supplements relieve OA pain. They may help preserve or repair cartilage.

Glucosamine is a natural sugar produced by the body and found in certain foods. It plays an important



role in the production, maintenance and repair of cartilage. It also helps form ligaments, tendons and nails. Glucosamine stimulates the production of glycosaminoglycans and proteoglycans, two essential building blocks of cartilage. In most cases, the joints produce sufficient Glucosamine to keep the cartilage in good repair, but if they fail to do so, it dries out, degenerates, cracks and may even completely wear away. Left unprotected, the joints then become swollen, stiff, inflamed, tender and painful—the condition known as osteoarthritis.

Artificially synthesised Glucosamine sulfate supplements is expected to help osteoarthritis sufferers jump start the natural production of Glucosamine by their own bodies. Combining Glucosamine with chondroitin sulfate, a larger molecule also found in cartilage, is thought to increase its effectiveness. Studies with Chondroitin sulfate show that it also seems to work as an anti-inflammatory and reduces pain. Some laboratory studies suggest that chondroitin sulfate may slow cartilage breakdown and even spur cartilage growth.

Herbs

Some research suggests that ginger, boswellia (frankincense) and turmeric relieve inflammation and pain.

Acupuncture

No evidence shows that acupuncture repairs cartilage, but studies indicate it can relieve OA pain.

Massage

It relieves stress and can relax tense muscles and ease pain.

Movement therapies

Learning to move your body well can help ease pain.

Yoga

Gentle and meditative exercises are used daily by millions of people. They can improve balance, muscle

strength, energy levels and mental outlook.

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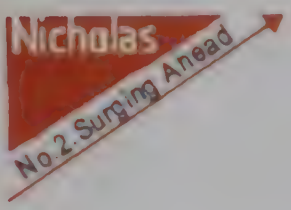
Movement re-education

Poor habits of moving or holding yourself can contribute to joint and muscle pain. Therapies such as the Alexander Technique and the Feldenkrais Method can teach you how to use your body more efficiently.

Stress reduction

Courses that teach meditation, deep relaxation, and other mind/body techniques seem to reduce pain and other symptoms for people with many kinds of arthritis.

These and other coping techniques can make living with arthritis easier. Though diet, exercise, and lifestyle changes, you can significantly decrease arthritis symptoms and increase your enjoyment of life.



Glossary

Analgesic: A medication or treatment that relieves pain.

Arthrography: An X-ray procedure that provides a detailed image of the joint when air or a contrast substance is injected into the joint space.

Corticosteroids: Powerful drugs similar to the hormones the body makes to fight inflammation. Glucocorticoids is a more precise term.

DMARDs: An acronym for disease modifying antirheumatic drugs.

Flare or flare-up: A worsening of symptoms and pain in those with chronic disease.

Glucocorticoids: These powerful drugs are similar to the hormones the body makes to fight inflammation. Cortisone and prednisone are the best known. They are also called corticosteroids.

Homocysteine: An amino acid associated with heart disease and stroke. People with lupus often have high levels of homocysteine.

Malar: A butterfly-shaped rash across the bridge of the nose and cheeks seen in those with lupus.

Manipulation: A treatment by which health professionals use their hands to help restore normal movements to stiff joints.

Mg/dl: Milligams per deciliter, a unit of measurement denoting the proportion of solids in a liquid medium.

NSAIDs: Nonsteroidal anti-inflammatory drugs, a group of medications, including aspirin, ibuprofen

and related drugs, used to reduce inflammation that causes joint pain, stiffness and swelling.

Remission: A term referring to a disorder or condition that causes pain or stiffness in the joints, muscles or bone.

Risk factor: Something that increases a person's chance of developing a disease, such as age, gender, ethnicity and family history.

Synovial fluid: Fluid released into movable joints by surrounding membranes. The fluid lubricates the joint and reduces friction.

Tendinitis: Inflammation of tendons caused by overuse, injury or related rheumatic conditions.

Ultrasound: A treatment that uses sound waves to provide deep heat and relieve pain.

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Banish misconceptions

Doctor, aren't arthritis and rheumatism synonymous?

Strictly speaking, no. Rheumatism refers to aches and pains from the muscles and other structures outside the joints.

On the other hand, arthritis means diseases of the joints, specifically when joints are inflammed.

What do you mean by inflammation?

Whenever any part of the body (i.e. tissue) is injured, it gets inflamed or manifests inflammation; this may be due to germs or bacteria (i.e. infection) or due to many other causes.

Anyway, when a tissue is inflammed it manifests pain, swelling, redness, heat or fever and loss of function of the organ. In arthritis, there is pain, swelling, redness and swelling of the joint with loss of movement.

What causes arthritis?

Osteoarthritis is due to wear and tear of joints and old age. In rheumatoid arthritis, the body's defence or immune system goes wrong and body's "soldiers" instead of attacking the invading bacteria, attack the joints producing arthritis. In infective or septic arthritis, bacteria directly penetrate the joints and at all times first set up infection somewhere in the body and later induce inflammation i.e. pain and swelling in the joints. Admittedly, there are a few cases of arthritis where the exact cause remains to be identified.

Are there many types of arthritis?

Over a hundred, but the five common types are:

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a) Wear and tear or mainly degenerative (such as osteoarthritis). This is when the cartilage or the "shock absorber" inside the joint gradually deteriorates over a period of time and the bones around it thicken and grow stiff with little inflammation. Osteoarthritis of knees and cervical spondylitis are common examples.

b) Inflammatory (such as rheumatoid arthritis). The disease may well be started by some infection which causes the joints to become inflamed, but from then on it almost seems as though the body's tissues and defence mechanisms react against themselves and perpetuate the inflammatory process. Pain and stiffness in joints of extremities may lead to disability.

c) Caused by defects in body chemistry (e.g. gout). This sort of inflammation usually affects one or two joints. In gout, the body has too much uric acid in blood and these injurious crystals get deposited in joints, producing very intense pain.

d) Other kinds: Many arthritic diseases are a mixture of both wear and tear and inflammatory changes. There are also some which are caused by infection, either when the bacteria themselves are taken to the joint (causing septic arthritis) or when the arthritic symptoms occur some time after the infection (as is the case of rheumatic fever and reactive arthritis).

In this second type, it seems as though the infection which may be anything from a sore throat to dysentery can directly trigger off changes in the joints though no bacteria are actually transferred there through the blood stream.

e) Soft tissue rheumatism: This is where tissue around the joint are affected by injuries, sprains, strains and as a result degenerate or become inflamed. Examples would be fibrositis, tennis elbow and similar aches and pains.

Does arthritis always affect the elderly?

Children, young adults and middle-aged also suf-

Nicholas
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fer fairly commonly. Even infants may not be spared.

Rheumatic fever is still common in India. At first these children suffer from sore throat and then develop inflammation of joints and also that of structures in the heat. Juvenile chronic arthritis is another crippling disease that children suffer from.

What happens if arthritis is neglected?

Almost invariably the patient will be crippled and become dependent on others, even for basic needs.

With what prognosis?

At an early stage, most types of arthritis are easily curable and easily controllable. At a later stage, the treatment generally is prolonged from weeks to months, at times a couple of years. But even this helps a lot in preventing the patient from becoming crippled.

What are the objectives in treating arthritis?

a) Relief of pain b) Encourage greater function or mobility of joints c) Prevent deformities and disabilities.

How do you achieve this?

a) Physical methods, such as heat therapy by way of hot water bag, short wave diathermy, infra red lamp etc.

b) By intelligent use of surgical operations, minor or major and

c) Drug therapy which is perhaps the main stay of arthritis management.

Which are the main drugs used for arthritis?

There are the painkillers relieving pain, reducing swelling and controlling inflammation. These are called non steroidal anti-inflammatory drugs (NSAIDs). For example, aspirin, ibuprofen, naproxen, diclofenac etc. More recently, we have a new generation of NSAIDs which spare the stomach, but control pain and swelling. These are called COX II inhibitors. For example, Celecoxib, Rofecoxib. Secondly, there are steroids. These are also anti-inflammatory drugs. They can produce almost instant relief from

pain, but they invariably produce side-effects if given in high doses or over prolonged periods. Hence one discourages the long-term use of steroids. At the same time there are definite indications for short-term use of steroids when used with caution.

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Do injections in the joint help?

When the joint is very painful or swollen, an injection of locally acting steroid in the joint is called for. This promptly helps relieve pain and reduces swelling. While the doctor can remove joint fluid and analyse it to diagnose the type of arthritis, a small dose of locally acting steroid is often introduced. The procedure is practically painfree in experienced hands and is quite useful. However, too many injections in the same joint are undesirable.

Can arthritis be prevented?

Balanced diet, regular exercise, correct posture and weight control help considerably in preventing some types of arthritis and even rheumatism. But there are many types of arthritis which cannot be prevented and hence at the first sign of persistent pain, stiffness with or without swelling is observed, the doctor should be consulted.

What is the future like for an arthritic patient?

If one can diagnose the exact type of arthritis, especially at an early stage, it is almost certain that a patient will never be crippled and that normal life at work and in the family is assured.

Arthritis help in India

A few organisations in India which have a specialised arthritis management wing:

All India Institute of Medical Sciences (AIIMS), New Delhi

Batra Hospital and Medical Research Centre, New Delhi

Nizam Institute of Medical Sciences, Hyderabad

KEM Hospital, Mumbai

Medical College and Hospital, Thiruvananthapuram

Christian Medical College and Hospital, Vellore

Madras Medical College and Govt. General Hospital, Chennai

PGIMER, Sector - 12, Chandigarh

St. John's Medical College and Hospital, Bangalore.

ARTHRITIS FOUNDATION (INDIA)No. 45, Magarath Road, (Off Richmond Road), Bangalore

Indian Rheumatism Association (IRA) HQ, PD Hinduja Hospital, Medical Research Centre, Mumbai

(IRA branches also at Delhi, Hyderabad, Chennai and Kolkata)

International Organisations

Arthritis foundation, HQ. Atlanta, USA

National Information Centre for the Handicapped,

Washington, US

The Arthritis Society, Toronto, Canada

National Association of the Physically Handicapped, Ohio, US

British Rheumatism and Arthritis Association, London

The Arthritis and Rheumatism Council, Faraday House, London

THE WEEK SUPPLEMENT

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